

NEW DESCRIPTIONS

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ON A NEW SUBSPECIES OF *CHAGUNIUS CHAGUNIO* (HAMILTON-BUCHANAN) (PISCES: CYPRINIDAE) FROM BURMA¹

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(With a text-figure)

A new subspecies of the cyprinoid fish, *Chagunius chagunio* (Hamilton-Buchanan) is described from Burma and its affinities with the 'forma typica' discussed.

INTRODUCTION

The monotypic genus *Chagunius* was established by Smith (1938) for the interesting and strongly characterised cyprinoid fish *Cyprinus chagunio* Hamilton-Buchanan, 1822. This species having a wide range along the base of the Himalayas (Day 1877, 1889), was added to the Burmese fauna (as *Barbus chagunio*) by collections made by Dr. B. N. Chopra during 1926 from Upper Burma (Prashad & Mukerji 1929) and later to the Thai fauna by Smith (1938).

During the course of our studies on the ichthyofauna of Burma, it was noticed that the two specimens of *Barbus chagunio* from Upper Burma (ZSI regd. no. F10909/1) reported on by Prashad & Mukerji (1929), and also the specimen collected from Upper Burma by Lt.-Col. R. W. Burton (ZSI regd no. F 11465/1) reported on by Mukerji (1934), have several marked distinctive features which deserve expression in nomenclature. The trenchant differences between the Burmese and

Indian material studied here are uniform and separate the two at a subspecific level. *Chagunius chagunio* was originally described from the Yamuna and the northern rivers of Bihar and Bengal by Hamilton-Buchanan (1822). The new subspecies is named in honour of Dr. Bains Prashad, in recognition of his contributions to the systematics of Burmese fishes.

SYSTEMATIC ACCOUNT

Family: CYPRINIDAE

Chagunius chagunio prashadi subsp. nov.

Barbus chagunio (nec Hamilton-Buchanan) Prashad & Mukerji, 1929, *Rec. Indian Mus.*, 31(3): 195; Mukerji, 1934, *J. Bombay nat. Hist. Soc.*, 37(1): 67.

Material: Holotype (Text-fig. 1) 200 mm standard length, Nam Kawng Chaung stream at Kamaing (Myitkyina District, Upper Burma), coll. B. N. Chopra, Nov.-December 1926; ZSI regd no. FF 2192.

Paratypes (i) a specimen, 190 mm SL., same data as holotype; ZSI regd no. FF 2193.

(ii) a specimen, 117 mm SL., Phungin Hka, a tributary of Mali Hka R. (Myitkyina District, Upper Burma), coll. R. W. Burton, 1930; ZSI regd no. FF 2194.

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Description: Based on the holotype and two paratypes. Meristic counts and morphometric measurements are presented in the table 1.

Dorsal fin inserted slightly in advance of pelvic fins, nearer the tip of snout than the caudal-fin base, with 13 rays (8 branched), the last simple ray osseous and coarsely ser-

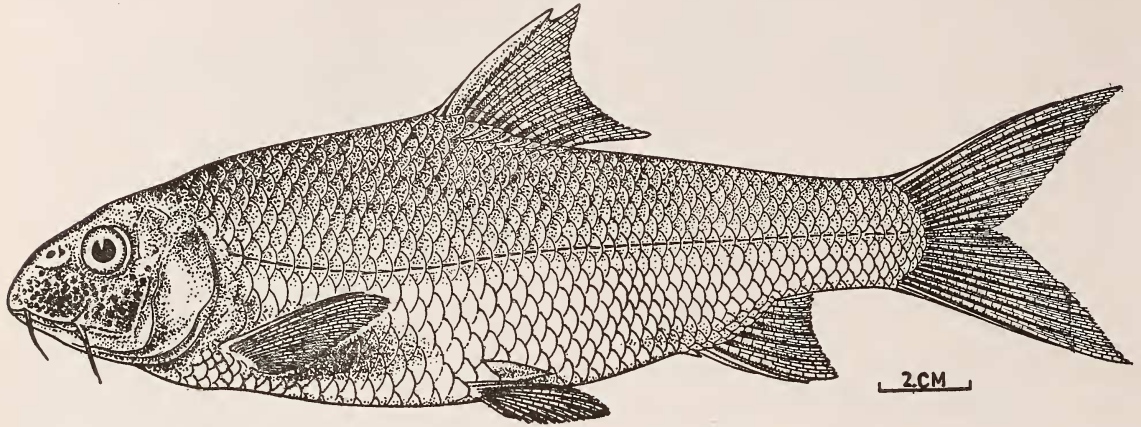


Fig. 1. *Chagunius chagunio prashadi* subsp. nov.

Body elongated and considerably compressed. Head much compressed, with flat sides. Eyes large, its diameter 4.0-4.8 in length of head; interorbital broad, its width more than eye-diameter. Mouth large, subinferior; lips thick, fleshy and papillose, continuous around corners of mouth, closely investing jaws; lower lip sharply defined by a long, deep, straight, posterior groove which does not extend to median line of chin. Pharyngeal teeth 5, 3, 2-2, 3, 5. Snout slightly overhanging the mouth, its free pendant border covering base of upper lip; snout divided into a central and two lateral lobes by a groove extending upward and forward from the base of each rostral barbel. Barbels two pairs (rostral and maxillary), well developed, almost equal in length but the rostral pair is more slender. Gill-membranes narrowly joined to isthmus; gill-rakers on lower arm of first arch 9 fleshy triangular plates.

rated, the first two simple rays are minute and embedded in the skin. Anal fin with 8 rays (5 branched). Pectoral fin with 15 rays. Pelvic fin with 10 rays (8 branched), its first

TABLE 1

	Holotype	Paratypes	
	FF 2192	FF 2193	FF 2194
Dorsal f.r.	v 8	v 8	v 8
Anal f.r.	iii 5	iii 5	iii 5
Standard length	200	190	117
Body depth	65	59	35
Head length	48	45	30
Eye diameter	12	11	8
Snout length	20	18	13
Interorbital width	18	17	10
Length of upper jaw	16	15	9
Length of lower jaw	21	19	12
Pectoral fin length	38	35	21
Pelvic fin length	33	29	19
Length of dorsal-fin spine	34	33	22

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simple ray very small and firmly attached to the second ray; pelvic fins with well developed scaly appendants. Caudal fin forked. Scales large; lateral line complete, with 46 or 47 scales, 1.tr.9/5; predorsal scales 14. Snout and cheeks beset with short horny tubercles.

Colour: in alcohol, silvery glossed with gold with the scales towards the back darkest at their bases; a blackish band just behind the operculum which passes from the base of pectoral fin to the nape.

DISCUSSION

Chagunius is a well-defined monotypic genus and closely allied to *Puntius* Hamilton-Buchanan from which it may be distinguished in having the snout divided into a median and two lateral lobes, and the presence of horny tubercles on the snout and cheeks (Smith 1945, Jayaram 1981). There has been a certain amount of confusion regarding the identity of the type-species, *Cyprinus chagunio* Hamilton-Buchanan and the subject has been discussed in detail by Hora (1928), and Hora & Mukerji (1933) who have shown that the species is sexually dimorphic.

Chagunius chagunio was added to the Burmese fauna by Prashad & Mukerji (1929) who gave a short description of the two specimens collected from Upper Burma by Dr. B. N. Chopra during 1926. The measurements given by Prashad & Mukerji (1929) are slightly at variance with those taken by us of the same material, probably this is mainly due to differences in method of measuring; the base of the caudal fin is difficult to find, and, moreover, slight changes may have occurred during preservation. Subsequent to this collection, Mukerji (1934) reported on another specimen

from Upper Burma. These three specimens of *Chagunius chagunio* have now been found to belong to an undescribed subspecies. This Burmese subspecies has been compared with the 'forma typica' which is well-represented in the ZSI collections.

The Burmese subspecies may be distinguished from the Indian *C. chagunio* in having a smaller head (3.9-4.2 vs 3.5-3.7 in Standard length), and shorter pectoral and pelvic fins (5.2-5.8 vs 4.3-5.0, 6.2-6.9 vs 4.9-5.9 respectively, both in Standard length). Besides these, the new subspecies has fewer scales in the lateral transverse series (9/5 vs 11/9); the barbels are almost equal in length whereas in the Indian *C. chagunio* the maxillary barbels are longer than the rostral; and further, the dorsal fin is slightly more anteriorly placed in the new subspecies, being nearer (vs midway) the tip of snout than the caudal fin base. The new subspecies was observed to be fairly common in the Nam Kawng Chaung at Kamaing (Upper Burma) by Dr. B. N. Chopra (Prashad & Mukerji 1929). As a consequence of this study it may be concluded that the Indian *Chagunius chagunio* has a wide range along the base of Himalayas only and its occurrence in Pakistan even is doubtful (Mirza 1975).

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THREE NEW SPECIES AND A NEW VARIETY OF
MONOCOTYLEDONS FROM SAVANTWADI, MAHARASHTRA¹

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(With two plates & four text-figures)

During the floristic studies of Savantwadi taluka, Sindhudurg Dist, Maharashtra, I came across a number of interesting plants. Critical studies on these specimens at Blatter Herbarium, has revealed three new species and a new variety.

1. *Pycreus bolei* sp. nov.

Herba cespitosa \pm 30 cm alta foliis linearibus costis prominentibus fuscis. Inflorescentia spicis compactis sessilibus stellatis linearibus stramineis bractatis. Glumae ovatae aristatae

carinatae. Stamina dua parva filamentis tenuibus. Nux oblancoolata apiculata compressa paginis tuberculatis longitudinalibus.

Rare in oryzae aperis agribus.

Holotypus: SMA-3438, lectus Satarda — Savantwadi 22-10-1980.

Similis Pycreo globoso (All.) Reich externo aspectu sed differt spiculis acuminatis facile separabilibus et rhachide plana et parvis staminibus.

Tufted herb, \pm 30 cm tall. Stems striate. Leaves flat, 27-30 cm long, linear, narrowing to the apex, glabrous with prominent brown midrid. Inflorescence of compact, sessile, stellate, linear spikes, bracteate. Rays 3-4 in

¹ Accepted June 1985.

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